MDOT
Michigan Department of Transportation

ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
JANUARY 3, 2002 - 9:00 A.M.
EXECUTIVE CONFERENCE ROOM

Present:	L. E. Tibbits	G. D. Taylor	J. D. Culp
	C. Roberts	J. D. O'Doherty	T. E. Davies
	J. W. Reincke		
Guests:	C. Libiran	J. Ruszkowski	T. Frake
	L. Galehouse	K. Kennedy	R. Rizzo
	J. Kirschensteiner	T. Myers	J. LaVoy

OLD BUSINESS

1. **Approval of the Minutes of the September 6, 2001, Meeting - L. E. Tibbits**

Minutes of the September 6, 2001, meeting were approved.

NEW BUSINESS

1. **Pavement Selections - K. Kennedy**

A. I-94 Reconstruction: CS 50111, JN 53226 -**Bituminous Pavement Selection**

The reconstruction alternates considered were a bituminous pavement (Alternate 1/EUAC $33,946) and a jointed reinforced concrete pavement (Alternate 2/EUAC $39,832).

A life cycle cost analysis was performed and Alternate 1 was approved based on having the lowest Equivalent Uniform Annual Cost. The pavement design and cost analysis summary are as follows:

Alternate 1 Reconstruct: Bituminous Pavement

50mm . . . . . Bituminous Mix 4E30, Top Course (Mainline)
76mm . . . . . Bituminous Mix 3E30, Leveling Course (Mainline)
76mm . . . . . Bituminous Mix 3E30, Base Course (Mainline)
104mm . . . . . Bituminous Mix 2E30, Base Course (Mainline)
170mm . . . . . Bituminous Mix 4C and 3C (Inside Shoulder)
230mm . . . . . Aggregate Base (296 mm Inside Shoulder and 236mm Outside Shoulder)
110mm . . . . . Sand Subbase (Grade Lift)

350mm . . . . . Existing Sand Subbase (350mm Minimum)
150mm . . . . . Subbase Underdrains
926mm . . . . . Total Thickness

Present Value Initial Construction Costs . . . . . $492,231/directional kilometer
Present Value Maintenance Costs . . . . . $100,884/directional kilometer

Equivalent Uniform Annual Cost . . . . . $33,946/directional kilometer

B. US-12 Reconstruction: CS 82062, JN 47064 - **Bituminous Pavement Selection**

The reconstruction alternates considered were a bituminous pavement (Alternate 1/$51,600) and a jointed reinforced concrete pavement (Alternate 2/$64,251).

A life cycle cost analysis was performed and Alternate 1 was approved based on having the lowest Equivalent Uniform Annual Cost. The pavement design and cost analysis summary are as follows:

Alternate 1 Reconstruct: Bituminous Pavement

48mm . . . . . Bituminous Mix 5E10, Top Course
63mm . . . . . Bituminous Mix 4E10, Leveling Course
98mm . . . . . Bituminous Mix 3E10, Base Course
160mm . . . . . Aggregate Base
460mm . . . . . Sand Subbase
150mm . . . . . Subbase Underdrains
829mm . . . . . Total Thickness

Present Value Initial Construction Costs . . . . . $680,048/directional kilometer
Present Value Initial User Costs . . . . . $47,402/directional kilometer
Present Value Maintenance Costs . . . . . $174,117/directional kilometer

Equivalent Uniform Annual Cost . . . . . $51,600/directional kilometer

2. **Addition of Two Typicals to Sign Support Typical Plans - T. Myers**

Two typicals were originally recommended for addition to the sign support typical plans, however, one: VIII-290, Cantilever Foundation Temporary Sheet Piling, was withdrawn and will be resubmitted in February for approval.

ACTION: Approval was given to add VIII-160, Cantilever Sign Support Selection Chart to the typical plans for sign supports.

3. **Freeway Shoulder Widths - T. Myers and C. Libiran**

Outside freeway shoulder widths are required to meet the current AASHTO standards of 10 ft paved. Our interstate freeway standard for new construction and reconstruction complies.

Under a past agreement with FHWA, we were allowed to retain an existing 9 ft paved outside shoulder for 3R type interstate work without submitting a formal design exception request. It was noted that current MDOT policy for non-interstate work is more restrictive by requiring a design exception when retaining an existing 9 ft paved shoulder. In order to be consistent and to comply with FHWA's request for a design exception on interstate 3R type projects, it is recommended that MDOT policy be revised.

ACTION: Revise MDOT policy to require design exceptions on interstate 3R projects when the 10 ft paved shoulder cannot be provided. Carlos Libiran will prepare a draft instructional memorandum to be reviewed by Thom Davies, Brian Ness, and Tom Myers. The Road Design Manual will be changed accordingly.

4. **Research Report, *Guidelines for 4-Lane to 3-Lane Conversion* - J. O'Doherty**

The research report was reviewed and it was determined that it should be sent out to the region traffic engineers for review and comments prior to approval. The report recommendations are to be reviewed and/or modified as appropriate before the report is returned to EOC for approval at a future EOC meeting.

5. **Bureau of Highway Instructional Memorandum 2002-01, *2001 Edition of the Construction and Technology Division's Procedures Manuals* - J. Ruszkowski**

The instructional memorandum notes changes to various Construction and Technology procedures manuals resulting from the *2003 Interim Standard Specifications for Construction*. The manuals are being published in dual units to allow their use with projects using either the 1996 specifications or the new 2003 interim specifications.

ACTION: The instructional memorandum is approved for distribution.

6. **FHWA Approval of Specifications - J. D. Culp and J. Ruszkowski**

In a letter dated November 30, 2001, the FHWA has requested prior approval of all design and construction specifications used on NHS projects, citing Title 23 USC 109. There was considerable discussion on both frequently used special provisions and project specific special provisions. FHWA believes the PS&E review is not fulfilling the required approval process as area engineers do not conduct an in-depth review of special provisions.

ACTION: Judy Ruszkowski will set up a response for Larry Tibbits' signature to the FHWA's letter requesting more clarification of their proposed review process.

Ryan Rizzo and Jim Kirschensteiner will review the issues from this meeting with Tom Fudaly. FHWA will further address their issues at the February meeting.

7. **New Pavement Treatment Work Plans Using AASHTO's Research Protocols for Pavement Preservation - J. D. Culp and L. Galehouse**

In January 2000, EOC approved a formal process to track the performance and cost-effectiveness of all new pavement preservation treatments using AASHTO's research protocols. Region staff were to evaluate each new treatment and forward their findings to the Pavement Committee, who would then make recommendations to EOC on future use of the treatments. To date no evaluations have been received from the regions.

Thom Davies advised that the regions do have the resources to accomplish what is needed if they are provided with the necessary guidance. To keep uniformity in the evaluations, a Lansing Construction and Technology staff person needs to be involved in each region's evaluation.

ACTION: Larry Galehouse will follow-up with the regions to provide a format for evaluation of the fixes. He will also become involved in the evaluations to provide statewide uniformity.

(Signed Copy on File at C&T)
Jon W. Reincke, Secretary
Engineering Operations Committee

JWR:kat

cc: EOC Members
Region Engineers

G. J. Rosine	R. J. Risser, Jr. (MCPA)	L. Stornant	T. L. Nelson
C. T. Maki	A. C. Milo (MRBA)	J. Ruszkowski	R. D. Till
R. J. Lippert, Jr.	J. Becsey (MAPA)	C. Libiran	M. Frierson
M. Nystrom (AUC)	D. Hollingsworth (MCA)	G. J. Bukoski	C. W. Whiteside
M. Newman (MAA)	J. Steele (FHWA)	K. Rothwell	T. E. Myers
J. Murner (MRPA)	K. Peters	T. Phillips	D. L. Smiley